

PATENT SPECIFICATION

DRAWINGS ATTACHED

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COMPLETE SPECIFICATION

Improvements relating to Infra-Red Tubes

I PIERRE LEVY, of 102 Avenue Jean-Jaures, Pantin, (Seine), France, a French citizen, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to infra-red tubes.

It has been found that the assembly of infra-red heating tubes has been accompanied by such rigidity that the tubes have not been protected against even indirect shock effects which because of this factor could cause deterioration of the tubes.

The object of the present invention is a modification in the assembly of infra-red tubes which brings about an improvement mitigating the disadvantage mentioned above.

The present invention is an infra-red heating tube which has an incombustible elastic material interposed between a quartz barrel of the tube and metal attaching ferrules, the elastic material being of sufficient thickness to damp shocks to which the tube may in service be subjected.

The present invention is also a method of mitigating the effects of shocks on infra-red heating tubes comprising interposing a cushion of incombustible elastic material between a quartz barrel of the tube and ferrules capping the ends of the tube.

An embodiment of the invention will now be described, by way of example, with reference to the accompanying drawing, which is an exploded longitudinal sectional view showing the manner of assembly of an infra-red tube in accordance with the invention.

Referring now to the drawing, the infra-red heating tube comprises a quartz barrel 3 within which is disposed a heating coil 4. The

quartz barrel is capped at its ends by brass ferrules 1 pierced internally for the passage of the ends of the heating coil. The heating coil is secured to these brass ferrules by means of washers 5 and locking nuts 6.

The brass ferrules include connectors 7 ensuring the supply of the current. The brass ferrules 1 house internally a triple layer 2 of incombustible elastic material, for instance glass wool, preventing any direct contact between the quartz and the brass. This interposition of an incombustible elastic material forms a sort of cushion which plays the part of a damping device. Shocks of up to a certain amplitude to which the tube assembly would be submitted will act upon the tube itself only after being substantially reduced and have then become practically imperceptible.

The present description depends upon the interposition between the quartz barrel and its brass ferrule of an incombustible elastic material such as glass wool. It is evident that any other incombustible material of sufficient elasticity could be employed without departing from the scope of the invention.

WHAT I CLAIM IS:—

1. An infra-red heating tube which has an incombustible elastic material interposed between a quartz barrel of the tube and metal attaching ferrules, the elastic material being of sufficient thickness to damp shocks to which the tube may in service be subjected.

2. An infra-red heating tube substantially as hereinbefore described with reference to the accompanying drawing.

3. A method of mitigating the effects of shocks on infra-red heating tubes comprising interposing a cushion of incombustible elastic

[—id.]

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material between a quartz barrel of the tube
and ferrules capping the ends of the tube.

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COMPLETE SPECIFICATION

1 SHEET

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